

Claims

1. A microwave oven comprising:
a cavity into which food is loaded;
5 a door for opening/closing a front side of the cavity;
at least one latch formed at an inner side of the door;
a latch board for supporting the latches when the latch
is inserted thereinto;

a monitor switch and a circuit switch, provided on the
10 latch board, for performing on/off operation to control the
microwave oven;

a first lever having one end contacting with the
monitor switch and the other end contacting with the latch,
the first lever rotating to turn on/off the monitor switch;

15 a second lever having one end contacting with the
circuit switch and the other end contacting with the latch,
the second lever rotating to turn on/off the circuit switch;
and

a protrusion part formed at a periphery of the first
20 lever and protruded from a portion with which the latch comes
in contact, such that if the latch is inserted, the monitor
switch operates before the circuit switch, and if the latch
is released, the monitor switch operates after the circuit
switch.

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2. The microwave oven according to claim 1, wherein
the latch contacting with the first lever is a flat latch and
the latch contacting with the second lever is a hook latch.

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3. The microwave oven according to claim 1, wherein
the second lever has three braches branched around a
rotational center in three directions.

4. The microwave oven according to claim 1, further
35 comprising an inclined part formed at a periphery of the
first lever, the periphery being extended from the protrusion

part, the inclined part fixing a position of the first lever when the latch is inserted.

5 5. The microwave oven according to claim 1, wherein the switch is hingedly fixed to the latch board.

10 6. The microwave oven according to claim 1, wherein the protrusion part is integrally formed with the first lever.

10 7. The microwave oven according to claim 1, wherein the latch board is tightly contacted with a rear side of a front frame.

15 8. The microwave oven according to claim 1, wherein the circuit switch is provided with a primary switch and a secondary switch, which are turned on/off at the same time.

20 9. The microwave oven according to claim 1, wherein the first lever is formed in a triangular shape.

25 10. The microwave oven according to claim 1, wherein the first lever is formed in a triangular shape, the first lever having a first edge acting as a rotational center, a second edge acting as the protrusion part, and a third edge as a pressing part contacting with the monitor switch.

30 11. The microwave oven according to claim 1, wherein the first lever is formed in an approximately triangular shape and rotated by a hinge, the hinge being provided at an edge.

35 12. A latch board of a microwave oven, comprising:
a monitor switch including a monitor button operated by a first lever, an internal contact point of the monitor switch being on/off by the monitor button;

a circuit switch including a circuit button operated by a second lever, an internal contact point of the circuit switch being on/off by the circuit button;

5 a first lever hinge for hingedly fixing the first lever;

a second lever hinge for hingedly fixing the second lever; and

10 a protrusion part protruded from one side of the first lever in an inserting direction of a latch.

13. The latch board according to claim 12, wherein the protrusion part is protruded from a front end periphery of the first lever.

15 14. The latch board according to claim 12, further comprising an inclined part extended downward from the protrusion part.

20 15. The latch board according to claim 12, wherein the protrusion part is integrally formed with the first lever.

25 16. A latch board of a microwave oven, comprising:
an inserting hole into which a latch is inserted, the latch being formed at an inner side of a door;

a plurality of levers provided inside the inserting hole; and

30 a plurality of switches, selectively coming in contact with the lever and the latch, for controlling on/off operation of the microwave oven, the switches including a monitor switch,

35 wherein the plurality of levers include a first lever for controlling on/off operation of the monitor switch, the first lever being formed in an approximate triangular shape and having a hinge formed at a first edge, a pressing part formed at a second edge to come in contact with the monitor

switch, and a protrusion part formed at a third edge to come in contact with the latch more rapidly.

5 17. The latch board according to claim 16, further comprising an inclined part formed at a portion extended from the protrusion part, the inclined part fixing a position of the first lever when the latch is inserted by more than a predetermined depth.

10 18. The latch board according to claim 16, wherein the protrusion part is protruded in an inserting direction of the latch.

15 19. The latch board according to claim 16, wherein the latch includes a flat latch coming in contact with the first lever and a hook latch coming in contact with another lever and performing a hook operation.

20 20. The latch board according to claim 16, wherein the switch includes a single monitor switch and a plurality of circuit switches.